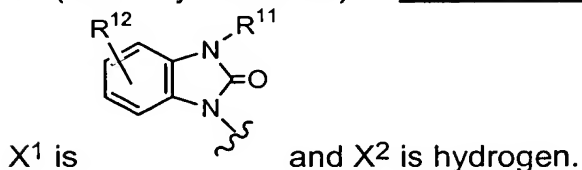


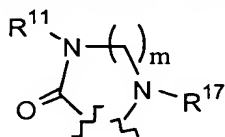
AMENDMENTS TO THE CLAIMS

1. (cancelled)
2. (currently amended) A method of claim 19 ~~the compound of claim 1~~ wherein Z<sup>1</sup> and Z<sup>2</sup> are each R<sup>7</sup>-aryl.
3. (currently amended) A ~~compound~~ method of claim 2 wherein Z<sup>1</sup> and Z<sup>2</sup> are each R<sup>7</sup>-phenyl.
4. (currently amended) A ~~compound~~ method of claim 3 wherein R<sup>7</sup> is selected from the group consisting of (C<sub>1</sub>-C<sub>6</sub>)alkyl and halo.
5. (currently amended) A method of claim 19 ~~compound of claim 1~~ wherein R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are each hydrogen.
6. (currently amended) A method of claim 19 ~~compound of claim 1~~ wherein R<sup>1</sup> and R<sup>3</sup> are each hydrogen and R<sup>2</sup> and R<sup>4</sup> are an alkylene bridge of 2 or 3 carbons.
7. (currently amended) A method of claim 19 ~~compound of claim 1~~ wherein X<sup>1</sup> is R<sup>7</sup>-aryl and and X<sup>2</sup> is OH or [-NC(O)R<sup>28</sup>] -NC(O)R<sup>21</sup>.
8. (currently amended) A method ~~compound~~ of claim 7 wherein X<sup>1</sup> is R<sup>7</sup>-phenyl.
9. (currently amended) A method of claim 19 ~~compound of claim 1~~ wherein



10. (currently amended) A method compound of claim 9 wherein R<sup>12</sup> is hydrogen and R<sup>11</sup> is (C<sub>1</sub>-C<sub>6</sub>)alkyl, -(C<sub>1</sub>-C<sub>6</sub>) alkyl(C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup> or -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>.

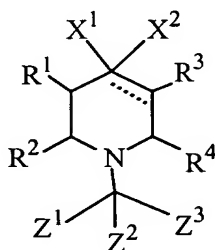
11. (currently amended) A method of claim 19 compound of claim 1 wherein X<sup>1</sup> and X<sup>2</sup> together form the spirocyclic group



12. (currently amended) A method compound of claim 11 wherein m is 1, R<sup>17</sup> is phenyl and R<sup>16</sup> is -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup> or -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>.

13 to 18. (cancelled)

19. (new) A method of treating cough comprising administering a combination of an effective amount of an ORL-1 agonist of the formula



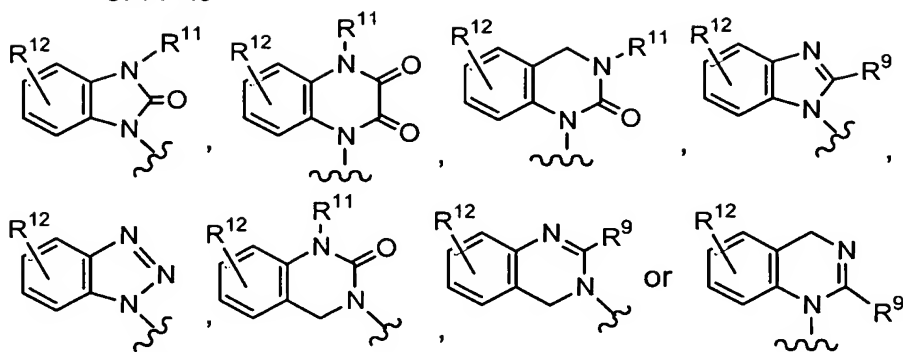
or a pharmaceutically acceptable salt or solvate thereof, wherein:

the dotted line represents an optional double bond;

X<sup>1</sup> is R<sup>5</sup>-(C<sub>1</sub>-C<sub>12</sub>)alkyl, R<sup>6</sup>-(C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, R<sup>7</sup>-aryl, R<sup>8</sup>-heteroaryl or R<sup>10</sup>-(C<sub>3</sub>-C<sub>7</sub>)heterocycloalkyl;

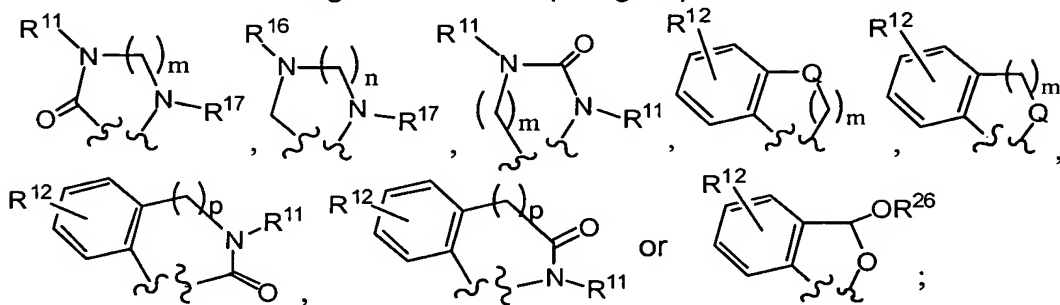
X<sup>2</sup> is -CHO, -CN, -NHC(=NR<sup>26</sup>)NHR<sup>26</sup>, -CH(=NOR<sup>26</sup>), -NHOR<sup>26</sup>, R<sup>7</sup>-aryl, R<sup>7</sup>-aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>7</sup>-aryl(C<sub>1</sub>-C<sub>6</sub>)alkenyl, R<sup>7</sup>-aryl(C<sub>1</sub>-C<sub>6</sub>)-alkynyl, -(CH<sub>2</sub>)<sub>v</sub>OR<sup>13</sup>, -(CH<sub>2</sub>)<sub>v</sub>COOR<sup>27</sup>, -(CH<sub>2</sub>)<sub>v</sub>CONR<sup>14</sup>R<sup>15</sup>, -(CH<sub>2</sub>)<sub>v</sub>NR<sup>21</sup>R<sup>22</sup> or -(CH<sub>2</sub>)<sub>v</sub>NHC(O)R<sup>21</sup>, wherein v is zero, 1, 2 or 3 and wherein q is 1 to 3 and a is 1 or 2;

or X<sup>1</sup> is



and X<sup>2</sup> is hydrogen;

or X<sup>1</sup> and X<sup>2</sup> together form a spiro group of the formula



m is 1 or 2;

n is 1, 2 or 3, provided that when n is 1, one of R<sup>16</sup> and R<sup>17</sup> is -C(O)R<sup>28</sup>;

p is 0 or 1;

Q is -CH<sub>2</sub>-, -O-, -S-, -SO-, -SO<sub>2</sub>- or -NR<sup>17</sup>-;

R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are independently selected from the group consisting of hydrogen and (C<sub>1</sub>-C<sub>6</sub>)alkyl, or (R<sup>1</sup> and R<sup>4</sup>) or (R<sup>2</sup> and R<sup>3</sup>) or (R<sup>1</sup> and R<sup>3</sup>) or (R<sup>2</sup> and R<sup>4</sup>) together can form an alkylene bridge of 1 to 3 carbon atoms;

R<sup>5</sup> is 1 to 3 substituents independently selected from the group consisting of H, R<sup>7</sup>-aryl, R<sup>6</sup>-(C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, R<sup>8</sup>-heteroaryl, R<sup>10</sup>-(C<sub>3</sub>-C<sub>7</sub>)heterocycloalkyl, -NR<sup>19</sup>R<sup>20</sup>, -OR<sup>13</sup> and -S(O)<sub>0-2</sub>R<sup>13</sup>;

R<sup>6</sup> is 1 to 3 substituents independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>7</sup>-aryl, -NR<sup>19</sup>R<sup>20</sup>, -OR<sup>13</sup> and -SR<sup>13</sup>;

R<sup>7</sup> is 1 to 3 substituents independently selected from the group consisting of hydrogen, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>25</sup>-aryl, (C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, -CN, -CF<sub>3</sub>, -OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -OCF<sub>3</sub>, -NR<sup>19</sup>R<sup>20</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>, -NHSO<sub>2</sub>R<sup>19</sup>, -SO<sub>2</sub>N(R<sup>26</sup>)<sub>2</sub>, -SO<sub>2</sub>R<sup>19</sup>, -SOR<sup>19</sup>, -SR<sup>19</sup>, -NO<sub>2</sub>, -CONR<sup>19</sup>R<sup>20</sup>, -NR<sup>20</sup>COR<sup>19</sup>, -COR<sup>19</sup>, -COCF<sub>3</sub>, -OCOR<sup>19</sup>, -OCO<sub>2</sub>R<sup>19</sup>, -COOR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NHCOOC(CH<sub>3</sub>)<sub>3</sub>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NHCOCF<sub>3</sub>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NHSO<sub>2</sub>-(C<sub>1</sub>-C<sub>6</sub>)alkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NHCONH-(C<sub>1</sub>-C<sub>6</sub>)-alkyl or  $-(CH_2)_f-N\text{---}\text{N}R^{19}$ , wherein f is 0 to 6; or R<sup>7</sup> substituents on adjacent ring carbon atoms may together form a methylenedioxy or ethylenedioxy ring;

R<sup>8</sup> is 1 to 3 substituents independently selected from the group consisting of hydrogen, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>25</sup>-aryl, (C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, -CN, -CF<sub>3</sub>, -OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -OCF<sub>3</sub>, -NR<sup>19</sup>R<sup>20</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>, -NHSO<sub>2</sub>R<sup>19</sup>, -SO<sub>2</sub>N(R<sup>26</sup>)<sub>2</sub>, -NO<sub>2</sub>, -CONR<sup>19</sup>R<sup>20</sup>, -NR<sup>20</sup>COR<sup>19</sup>, -COR<sup>19</sup>, -OCOR<sup>19</sup>, -OCO<sub>2</sub>R<sup>19</sup> and -COOR<sup>19</sup>;

R<sup>9</sup> is hydrogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl, halo, -OR<sup>19</sup>, -NR<sup>19</sup>R<sup>20</sup>, -NHCN, -SR<sup>19</sup> or -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>;

R<sup>10</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, -OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -NR<sup>19</sup>R<sup>20</sup> or -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>;

R<sup>11</sup> is independently selected from the group consisting of H, R<sup>5</sup>-(C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>6</sup>-(C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl(C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup> and  $-(\text{CH}_2)_q-\text{N}(\text{C}_4\text{H}_8)_a$ , wherein q and a are as defined above;

R<sup>12</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, halo, -NO<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -NR<sup>19</sup>R<sup>20</sup> or -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>;

R<sup>13</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>7</sup>-aryl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup> or -(C<sub>1</sub>-C<sub>6</sub>)alkyl-SR<sup>19</sup>;

R<sup>14</sup> and R<sup>15</sup> are independently selected from the group consisting of H, R<sup>5</sup>-(C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>7</sup>-aryl and  $-(CH_2)_q-C(=O)-N(\text{cyclopentyl})_a$ , wherein q and a are as defined above;

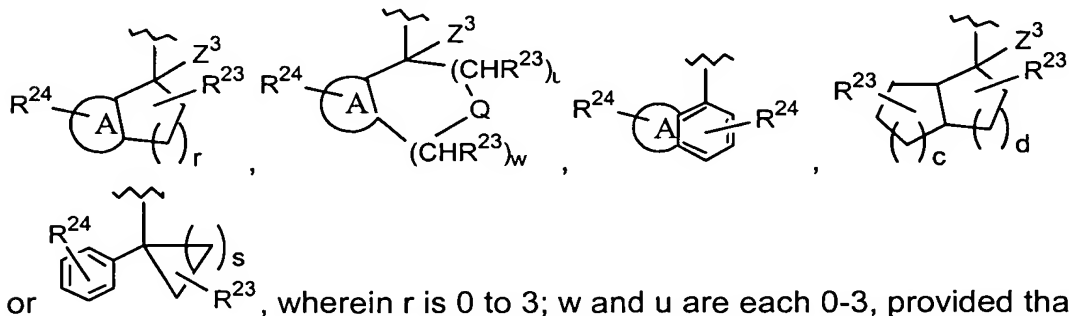
R<sup>16</sup> and R<sup>17</sup> are independently selected from the group consisting of hydrogen, R<sup>5</sup>-(C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>7</sup>-aryl, (C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, R<sup>8</sup>-heteroaryl, R<sup>8</sup>-heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, -C(O)R<sup>28</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl(C<sub>3</sub>-C<sub>7</sub>)-heterocycloalkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup> and -(C<sub>1</sub>-C<sub>6</sub>)alkyl-SR<sup>19</sup>;

R<sup>19</sup> and R<sup>20</sup> are independently selected from the group consisting of hydrogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, aryl and aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl;

R<sup>21</sup> and R<sup>22</sup> are independently selected from the group consisting of hydrogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, (C<sub>3</sub>-C<sub>12</sub>)cycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>7</sub>)heterocycloalkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl(C<sub>3</sub>-C<sub>7</sub>)-heterocycloalkyl, R<sup>7</sup>-aryl, R<sup>7</sup>-aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>8</sup>-heteroaryl(C<sub>1</sub>-C<sub>12</sub>)alkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-SR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>18</sup>-(C<sub>1</sub>-C<sub>6</sub>)alkyl-O-(C<sub>1</sub>-C<sub>6</sub>)alkyl and -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>18</sup>-(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>18</sup>-(C<sub>1</sub>-C<sub>6</sub>)alkyl;

R<sup>18</sup> is hydrogen or (C<sub>1</sub>-C<sub>6</sub>)alkyl;

Z<sup>1</sup> is R<sup>5</sup>-(C<sub>1</sub>-C<sub>12</sub>)alkyl, R<sup>7</sup>-aryl, R<sup>8</sup>-heteroaryl, R<sup>6</sup>-(C<sub>3</sub>-C<sub>12</sub>)cyclo-alkyl, R<sup>10</sup>-(C<sub>3</sub>-C<sub>7</sub>)heterocycloalkyl, -CO<sub>2</sub>(C<sub>1</sub>-C<sub>6</sub>)alkyl, CN or -C(O)NR<sup>19</sup>R<sup>20</sup>; Z<sup>2</sup> is hydrogen or Z<sup>1</sup>; Z<sup>3</sup> is hydrogen or (C<sub>1</sub>-C<sub>6</sub>)alkyl; or Z<sup>1</sup>, Z<sup>2</sup> and Z<sup>3</sup>, together with the carbon to which they are attached, form the group



, wherein r is 0 to 3; w and u are each 0-3, provided that the sum of w and u is 1-3; c and d are independently 1 or 2; s is 1 to 5; and ring

A is a fused R<sup>7</sup>-phenyl or R<sup>8</sup>-heteroaryl ring;

R<sup>23</sup> is 1 to 3 substituents independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, -OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -NR<sup>19</sup>R<sup>20</sup> and -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>;

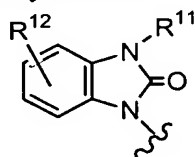
R<sup>24</sup> is 1 to 3 substituents independently selected from the group consisting of R<sup>23</sup>, -CF<sub>3</sub>, -OCF<sub>3</sub>, NO<sub>2</sub> or halo, or R<sup>24</sup> substituents on adjacent ring carbon atoms may together form a methylenedioxy or ethylenedioxy ring;

R<sup>25</sup> is 1-3 substituents independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy and halo;

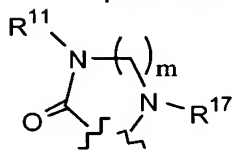
R<sup>26</sup> is independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>6</sub>)alkyl and R<sup>25</sup>-C<sub>6</sub>H<sub>4</sub>-CH<sub>2</sub>-;

R<sup>27</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>7</sup>-aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, or (C<sub>3</sub>-C<sub>12</sub>)cycloalkyl;

R<sup>28</sup> is (C<sub>1</sub>-C<sub>6</sub>)alkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl(C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, R<sup>7</sup>-aryl, R<sup>7</sup>-aryl-(C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>8</sup>-heteroaryl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup> or -(C<sub>1</sub>-C<sub>6</sub>)alkyl-SR<sup>19</sup>;

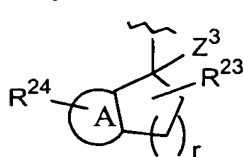


provided that when X<sup>1</sup> is or X<sup>1</sup> and X<sup>2</sup> together are

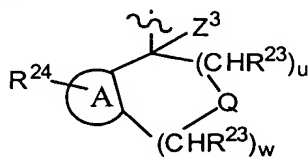


and Z<sup>1</sup> is R<sup>7</sup>-phenyl, Z<sup>2</sup> is not hydrogen or (C<sub>1</sub>-C<sub>3</sub>)alkyl;

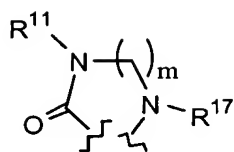
provided that when Z<sup>1</sup>, Z<sup>2</sup> and Z<sup>3</sup>, together with the carbon to which they are attached, form



or

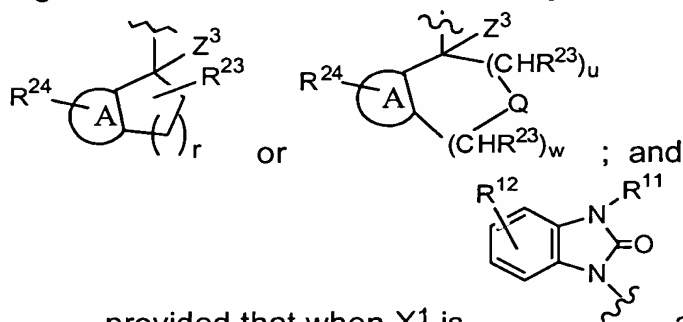


, and X<sup>1</sup> and X<sup>2</sup> together are



,  $R^{11}$  is not H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl or (C<sub>1</sub>-C<sub>6</sub>)hydroxyalkyl;

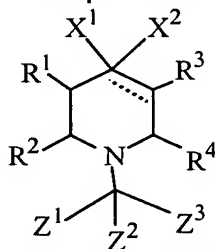
provided that when  $R^2$  and  $R^4$  form an alkylene bridge,  $Z^1$ ,  $Z^2$  and  $Z^3$ , together with the carbon to which they are attached, are not



provided that when  $X^1$  is and  $Z^1$  is  $R^6$ -(C<sub>3</sub>-C<sub>12</sub>)-cycloalkyl,  $Z^2$  is not H;

and an effective amount of second agent for treating cough, allergy or asthma symptoms selected from the group consisting of: antihistamines, 5-lipoxygenase inhibitors, leukotriene inhibitors, H<sub>3</sub> inhibitors,  $\beta$ -adrenergic receptor agonists, xanthine derivatives,  $\alpha$ -adrenergic receptor agonists, mast cell stabilizers, anti-tussives, expectorants, NK<sub>1</sub>, NK<sub>2</sub> and NK<sub>3</sub> tachykinin receptor antagonists, and GABA<sub>B</sub> agonists.

20. (new) A pharmaceutical composition comprising: a therapeutically effective amount of a nociceptin receptor ORL-1 agonist of the formula



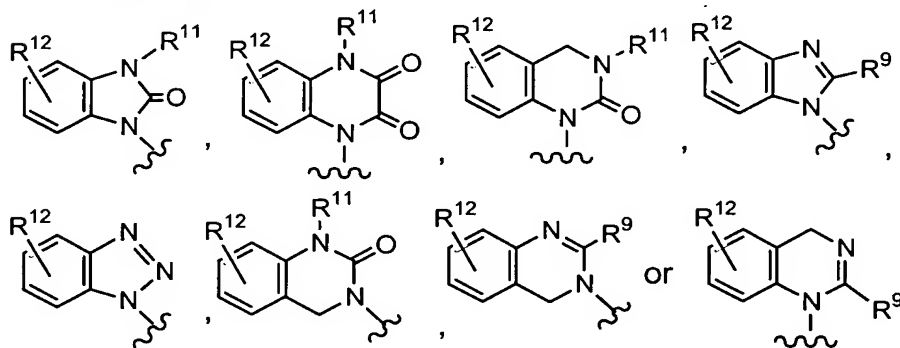
or a pharmaceutically acceptable salt or solvate thereof, wherein:

the dotted line represents an optional double bond;

X<sup>1</sup> is R<sup>5</sup>-(C<sub>1</sub>-C<sub>12</sub>)alkyl, R<sup>6</sup>-(C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, R<sup>7</sup>-aryl, R<sup>8</sup>-heteroaryl or R<sup>10</sup>-(C<sub>3</sub>-C<sub>7</sub>)heterocycloalkyl;

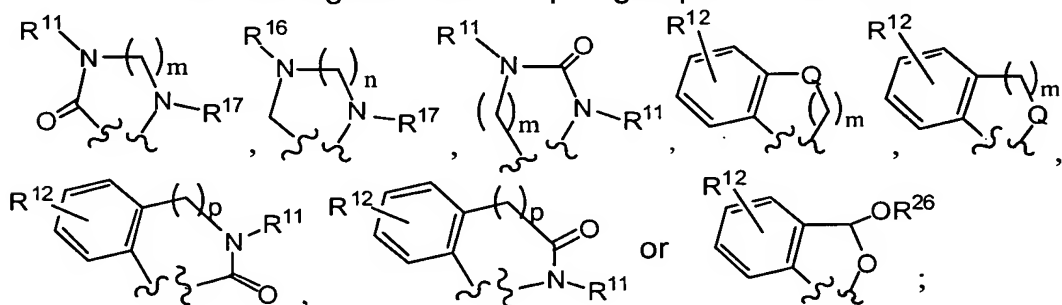
X<sup>2</sup> is -CHO, -CN, -NHC(=NR<sup>26</sup>)NHR<sup>26</sup>, -CH(=NOR<sup>26</sup>), -NHOR<sup>26</sup>, R<sup>7</sup>-aryl, R<sup>7</sup>-aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>7</sup>-aryl(C<sub>1</sub>-C<sub>6</sub>)alkenyl, R<sup>7</sup>-aryl(C<sub>1</sub>-C<sub>6</sub>)-alkynyl, -(CH<sub>2</sub>)<sub>v</sub>OR<sup>13</sup>, -(CH<sub>2</sub>)<sub>v</sub>COOR<sup>27</sup>, -(CH<sub>2</sub>)<sub>v</sub>CONR<sup>14</sup>R<sup>15</sup>, -(CH<sub>2</sub>)<sub>v</sub>NR<sup>21</sup>R<sup>22</sup> or -(CH<sub>2</sub>)<sub>v</sub>NHC(O)R<sup>21</sup>, wherein v is zero, 1, 2 or 3 and wherein q is 1 to 3 and a is 1 or 2;

or X<sup>1</sup> is



and X<sup>2</sup> is hydrogen;

or X<sup>1</sup> and X<sup>2</sup> together form a spiro group of the formula



m is 1 or 2;

n is 1, 2 or 3, provided that when n is 1, one of R<sup>16</sup> and R<sup>17</sup> is -C(O)R<sup>28</sup>;

p is 0 or 1;

Q is -CH<sub>2</sub>-, -O-, -S-, -SO-, -SO<sub>2</sub>- or -NR<sup>17</sup>-;

R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are independently selected from the group consisting of hydrogen and (C<sub>1</sub>-C<sub>6</sub>)alkyl, or (R<sup>1</sup> and R<sup>4</sup>) or (R<sup>2</sup> and R<sup>3</sup>) or



(R<sup>1</sup> and R<sup>3</sup>) or (R<sup>2</sup> and R<sup>4</sup>) together can form an alkylene bridge of 1 to 3 carbon atoms;

R<sup>5</sup> is 1 to 3 substituents independently selected from the group consisting of H, R<sup>7</sup>-aryl, R<sup>6</sup>-(C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, R<sup>8</sup>-heteroaryl, R<sup>10</sup>-(C<sub>3</sub>-C<sub>7</sub>)heterocycloalkyl, -NR<sup>19</sup>R<sup>20</sup>, -OR<sup>13</sup> and -S(O)<sub>0-2</sub>R<sup>13</sup>;

R<sup>6</sup> is 1 to 3 substituents independently selected from the group consisting of H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>7</sup>-aryl, -NR<sup>19</sup>R<sup>20</sup>, -OR<sup>13</sup> and -SR<sup>13</sup>;

R<sup>7</sup> is 1 to 3 substituents independently selected from the group consisting of hydrogen, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>25</sup>-aryl, (C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, -CN, -CF<sub>3</sub>, -OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -OCF<sub>3</sub>, -NR<sup>19</sup>R<sup>20</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>, -NHSO<sub>2</sub>R<sup>19</sup>, -SO<sub>2</sub>N(R<sup>26</sup>)<sub>2</sub>, -SO<sub>2</sub>R<sup>19</sup>, -SOR<sup>19</sup>, -SR<sup>19</sup>, -NO<sub>2</sub>, -CONR<sup>19</sup>R<sup>20</sup>, -NR<sup>20</sup>COR<sup>19</sup>, -COR<sup>19</sup>, -COCF<sub>3</sub>, -OCOR<sup>19</sup>, -OCO<sub>2</sub>R<sup>19</sup>, -COOR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NHCOOC(CH<sub>3</sub>)<sub>3</sub>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NHCOCF<sub>3</sub>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NHSO<sub>2</sub>-(C<sub>1</sub>-C<sub>6</sub>)alkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NHCONH-(C<sub>1</sub>-C<sub>6</sub>)alkyl or  $-(CH_2)_f-N \begin{array}{c} \diagup \quad \diagdown \\ \diagdown \quad \diagup \end{array} N-R^{19}$ , wherein f is 0 to 6; or R<sup>7</sup> substituents on adjacent ring carbon atoms may together form a methylenedioxy or ethylenedioxy ring;

R<sup>8</sup> is 1 to 3 substituents independently selected from the group consisting of hydrogen, halo, (C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>25</sup>-aryl, (C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, -CN, -CF<sub>3</sub>, -OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -OCF<sub>3</sub>, -NR<sup>19</sup>R<sup>20</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>, -NHSO<sub>2</sub>R<sup>19</sup>, -SO<sub>2</sub>N(R<sup>26</sup>)<sub>2</sub>, -NO<sub>2</sub>, -CONR<sup>19</sup>R<sup>20</sup>, -NR<sup>20</sup>COR<sup>19</sup>, -COR<sup>19</sup>, -OCOR<sup>19</sup>, -OCO<sub>2</sub>R<sup>19</sup> and -COOR<sup>19</sup>;

R<sup>9</sup> is hydrogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl, halo, -OR<sup>19</sup>, -NR<sup>19</sup>R<sup>20</sup>, -NHCN, -SR<sup>19</sup> or -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>;

R<sup>10</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, -OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -NR<sup>19</sup>R<sup>20</sup> or -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>;

R<sup>11</sup> is independently selected from the group consisting of H, R<sup>5</sup>-(C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>6</sup>-(C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl(C<sub>3</sub>-C<sub>12</sub>)cycloalkyl,

$-(C_1-C_6)alkyl-OR^{19}$ ,  $-(C_1-C_6)alkyl-NR^{19}R^{20}$  and  $-(CH_2)_q-N(\text{cyclopentyl})_a$ , wherein  
 $q$  and  $a$  are as defined above;

R<sup>12</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, halo, -NO<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -NR<sup>19</sup>R<sup>20</sup> or -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>;

R<sup>13</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>7</sup>-aryl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup> or -(C<sub>1</sub>-C<sub>6</sub>)alkyl-SR<sup>19</sup>;

R<sup>14</sup> and R<sup>15</sup> are independently selected from the group consisting of H, R<sup>5</sup>-(C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>7</sup>-aryl and  $-(\text{CH}_2)_q-\text{C}(=\text{O})-\text{N}(\text{C}_4\text{H}_8)_a$ , wherein q and a are as defined above;

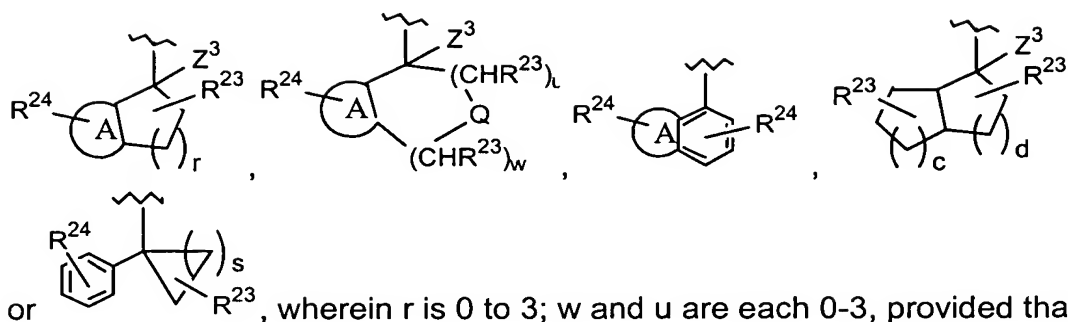
R<sup>16</sup> and R<sup>17</sup> are independently selected from the group consisting of hydrogen, R<sup>5</sup>-(C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>7</sup>-aryl, (C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, R<sup>8</sup>-heteroaryl, R<sup>8</sup>-heteroaryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, -C(O)R<sup>28</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl(C<sub>3</sub>-C<sub>7</sub>)-heterocycloalkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup> and -(C<sub>1</sub>-C<sub>6</sub>)alkyl-SR<sup>19</sup>;

R<sup>19</sup> and R<sup>20</sup> are independently selected from the group consisting of hydrogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, aryl and aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl;

R<sup>21</sup> and R<sup>22</sup> are independently selected from the group consisting of hydrogen, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>12</sub>)cycloalkyl, (C<sub>3</sub>-C<sub>12</sub>)cycloalkyl(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>3</sub>-C<sub>7</sub>)heterocycloalkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl(C<sub>3</sub>-C<sub>7</sub>)-heterocycloalkyl, R<sup>7</sup>-aryl, R<sup>7</sup>-aryl(C<sub>1</sub>-C<sub>6</sub>)alkyl, R<sup>8</sup>-heteroaryl(C<sub>1</sub>-C<sub>12</sub>)alkyl, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-OR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>19</sup>R<sup>20</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-SR<sup>19</sup>, -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>18</sup>-(C<sub>1</sub>-C<sub>6</sub>)alkyl-O-(C<sub>1</sub>-C<sub>6</sub>)alkyl and -(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>18</sup>-(C<sub>1</sub>-C<sub>6</sub>)alkyl-NR<sup>18</sup>-(C<sub>1</sub>-C<sub>6</sub>)alkyl;

R<sup>18</sup> is hydrogen or (C<sub>1</sub>-C<sub>6</sub>)alkyl;

Z<sup>1</sup> is R<sup>5</sup>-(C<sub>1</sub>-C<sub>12</sub>)alkyl, R<sup>7</sup>-aryl, R<sup>8</sup>-heteroaryl, R<sup>6</sup>-(C<sub>3</sub>-C<sub>12</sub>)cyclo-alkyl, R<sup>10</sup>-(C<sub>3</sub>-C<sub>7</sub>)heterocycloalkyl, -CO<sub>2</sub>(C<sub>1</sub>-C<sub>6</sub>)alkyl, CN or -C(O)NR<sup>19</sup>R<sup>20</sup>; Z<sup>2</sup> is hydrogen or Z<sup>1</sup>; Z<sup>3</sup> is hydrogen or (C<sub>1</sub>-C<sub>6</sub>)alkyl; or Z<sup>1</sup>, Z<sup>2</sup> and Z<sup>3</sup>, together with the carbon to which they are attached, form the group



, wherein  $r$  is 0 to 3;  $w$  and  $u$  are each 0-3, provided that the sum of  $w$  and  $u$  is 1-3;  $c$  and  $d$  are independently 1 or 2;  $s$  is 1 to 5; and ring  $A$  is a fused  $R^7$ -phenyl or  $R^8$ -heteroaryl ring;

$R^{23}$  is 1 to 3 substituents independently selected from the group consisting of H,  $(C_1-C_6)$ alkyl,  $-OR^{19}$ ,  $-(C_1-C_6)$ alkyl- $OR^{19}$ ,  $-NR^{19}R^{20}$  and  $-(C_1-C_6)$ alkyl- $NR^{19}R^{20}$ ;

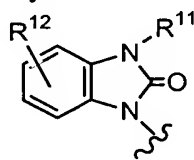
$R^{24}$  is 1 to 3 substituents independently selected from the group consisting of  $R^{23}$ ,  $-CF_3$ ,  $-OCF_3$ ,  $NO_2$  or halo, or  $R^{24}$  substituents on adjacent ring carbon atoms may together form a methylenedioxy or ethylenedioxy ring;

$R^{25}$  is 1-3 substituents independently selected from the group consisting of H,  $(C_1-C_6)$ alkyl,  $(C_1-C_6)$ alkoxy and halo;

$R^{26}$  is independently selected from the group consisting of H,  $(C_1-C_6)$ alkyl and  $R^{25}-C_6H_4-CH_2-$ ;

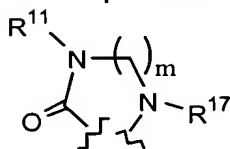
$R^{27}$  is H,  $(C_1-C_6)$ alkyl,  $R^7$ -aryl $(C_1-C_6)$ alkyl, or  $(C_3-C_{12})$ cycloalkyl;

$R^{28}$  is  $(C_1-C_6)$ alkyl,  $-(C_1-C_6)$ alkyl $(C_3-C_{12})$ cycloalkyl,  $R^7$ -aryl,  $R^7$ -aryl- $(C_1-C_6)$ alkyl,  $R^8$ -heteroaryl,  $-(C_1-C_6)$ alkyl- $NR^{19}R^{20}$ ,  $-(C_1-C_6)$ alkyl- $OR^{19}$  or  $-(C_1-C_6)$ alkyl- $SR^{19}$ ;



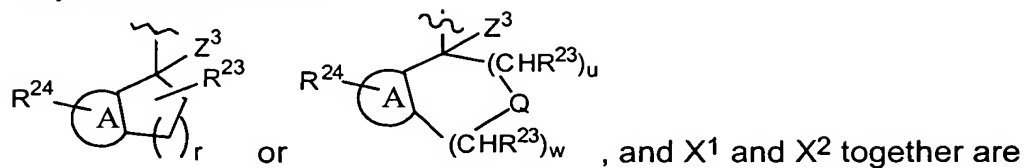
provided that when  $X^1$  is

or  $X^1$  and  $X^2$  together are



and  $Z^1$  is  $R^7$ -phenyl,  $Z^2$  is not hydrogen or  $(C_1-C_3)$ alkyl;

provided that when Z<sup>1</sup>, Z<sup>2</sup> and Z<sup>3</sup>, together with the carbon to which they are attached, form

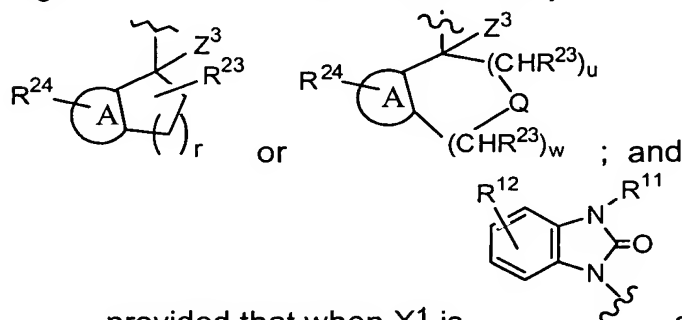


, and X<sup>1</sup> and X<sup>2</sup> together are

The diagram shows a cyclic amide structure with a nitrogen atom bonded to R<sup>11</sup> and a carbonyl group (C=O). The nitrogen is also bonded to a group (CHR<sup>23</sup>)<sub>m</sub>, and the carbonyl carbon is bonded to a group (CHR<sup>23</sup>)<sub>n</sub>. The group R<sup>17</sup> is attached to the nitrogen atom.

, R<sup>11</sup> is not H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy(C<sub>1</sub>-C<sub>6</sub>)alkyl or (C<sub>1</sub>-C<sub>6</sub>)hydroxyalkyl;

provided that when R<sup>2</sup> and R<sup>4</sup> form an alkylene bridge, Z<sup>1</sup>, Z<sup>2</sup> and Z<sup>3</sup>, together with the carbon to which they are attached, are not



provided that when X<sup>1</sup> is and Z<sup>1</sup> is R<sup>6</sup>-(C<sub>3</sub>-C<sub>12</sub>)-cycloalkyl, Z<sup>2</sup> is not H; and

a therapeutically effective amount of a second agent selected from the group consisting of: antihistamines, 5-lipoxygenase inhibitors, leukotriene inhibitors, H<sub>3</sub> inhibitors, β-adrenergic receptor agonists, xanthine derivatives, α-adrenergic receptor agonists, mast cell stabilizers, anti-tussives, expectorants, NK<sub>1</sub>, NK<sub>2</sub> and NK<sub>3</sub> tachykinin receptor antagonists, and GABA<sub>B</sub> agonists; and a pharmaceutically acceptable carrier.